

## New Product

**SURFACE MOUNT  
SHIELDED POWER INDUCTOR  
SERIES STS703**

### FEATURES

- RoHS Compliant
- High current handling capacity
- Ultra low profile and subminiature footprint
- Low noise, due to composite construction
- High Frequency up to 5MHz

### ELECTRICAL SPECIFICATIONS

- Inductance range    0.10uH to 10.0uH
- Test condition        1Vrms @ 100kHz
- Test equipment        Quadtech 1750 LCR Meter

### PHYSICAL SPECIFICATIONS

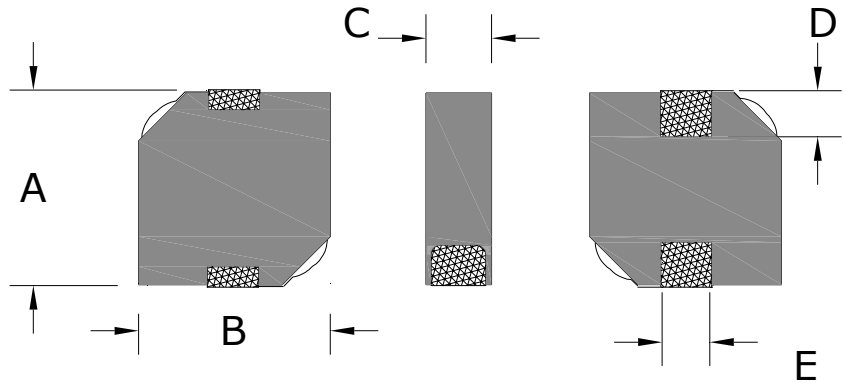
- Operating temp.        -55°C to +125°C
- Shielding                Mixed Material
- Core & base              Mixed Material
- Packaging                T & R    1000 pieces per reel
- Tape & reel spec.      Tape    16 mm embossed carrier
- Reel    330 mm paper reel

### Dimensions in millimeters

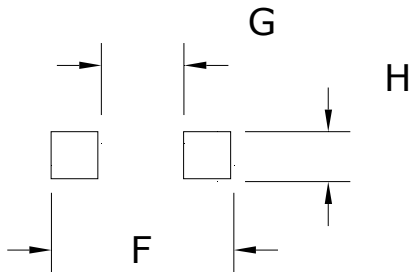
- Length A                 7.8 max
- Width B                 7.0 max
- Height C                3.2 max
- Terminal length D      1.6 ± 0.5
- Terminal width E       2.1 ± 0.5
- Footprint length F     8.7 ref
- Pad spacing G          3.7 ref
- Pad width H            3.5 ref

### SPECIFICATIONS

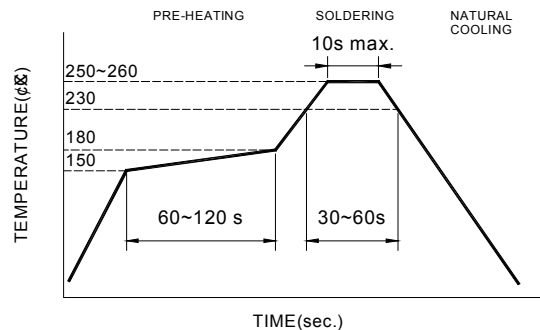
Part Number	L(uH)	Tol % ±	DCR (ohms) max	Rated Current (A) (Note 1)	Saturation Current (A) (Note 2)
STS703-R10M	0.10	20	0.0017	32.5	42
STS703-R15M	0.15	20	0.0025	26.0	38
STS703-R20M	0.20	20	0.0030	24.0	36
STS703-R22M	0.22	20	0.0028	23.0	36
STS703-R33M	0.33	20	0.0039	20.0	30
STS703-R47M	0.47	20	0.0042	17.5	26
STS703-R68M	0.68	20	0.0055	15.5	23
STS703-R82M	0.82	20	0.0080	13.0	20
STS703-1R0M	1.0	20	0.0100	12.0	16
STS703-1R5M	1.5	20	0.0150	9.0	14
STS703-2R2M	2.2	20	0.0200	8.0	12
STS703-3R3M	3.3	20	0.0300	6.5	10
STS703-4R7M	4.7	20	0.0400	5.5	6.5
STS703-6R8M	6.8	20	0.0600	4.5	6.0
STS703-8R2M	8.2	20	0.0068	4.0	5.5
STS703-100M	10	20	0.1050	3.0	4.5



### Suggested PCB layout



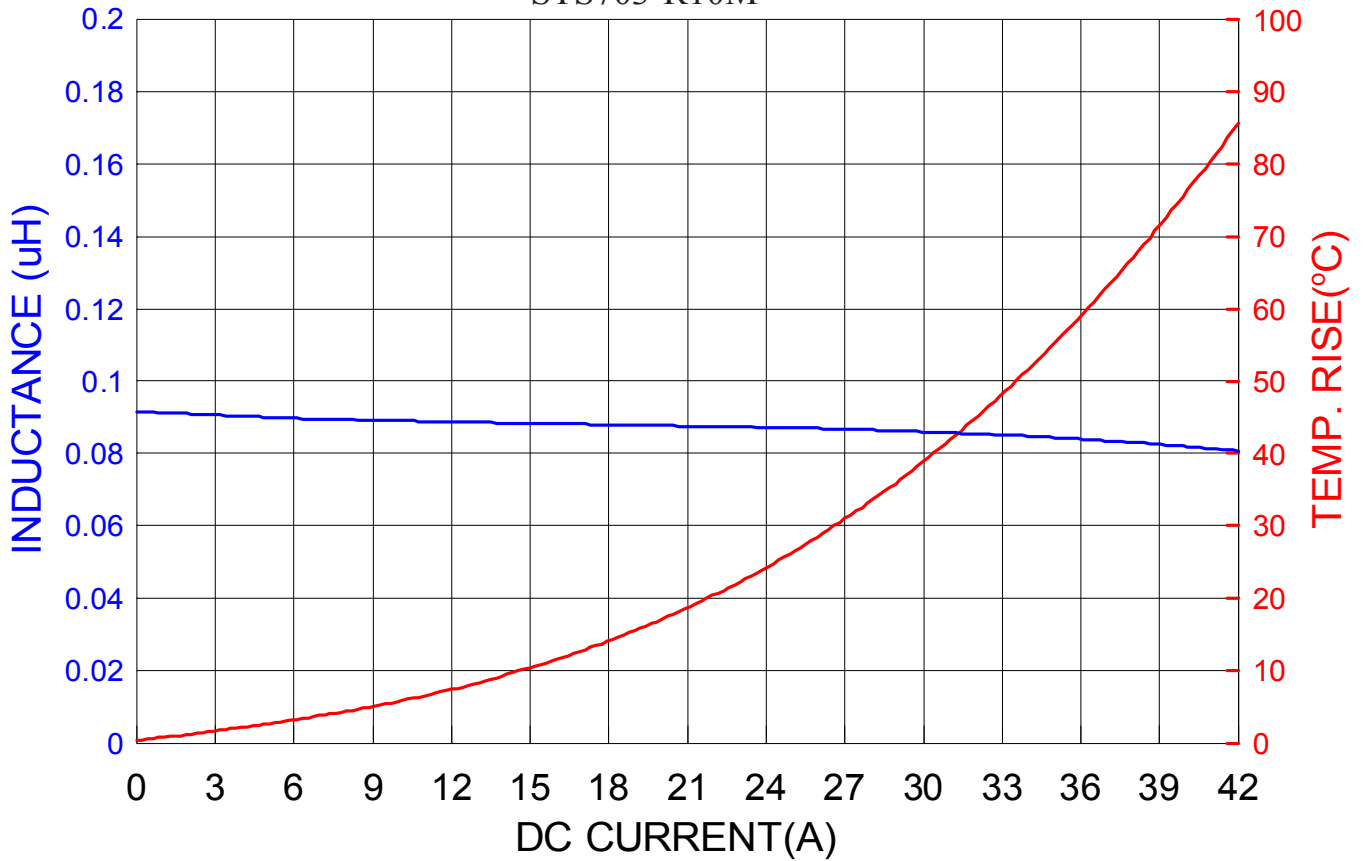
### Suggested Reflow Profile



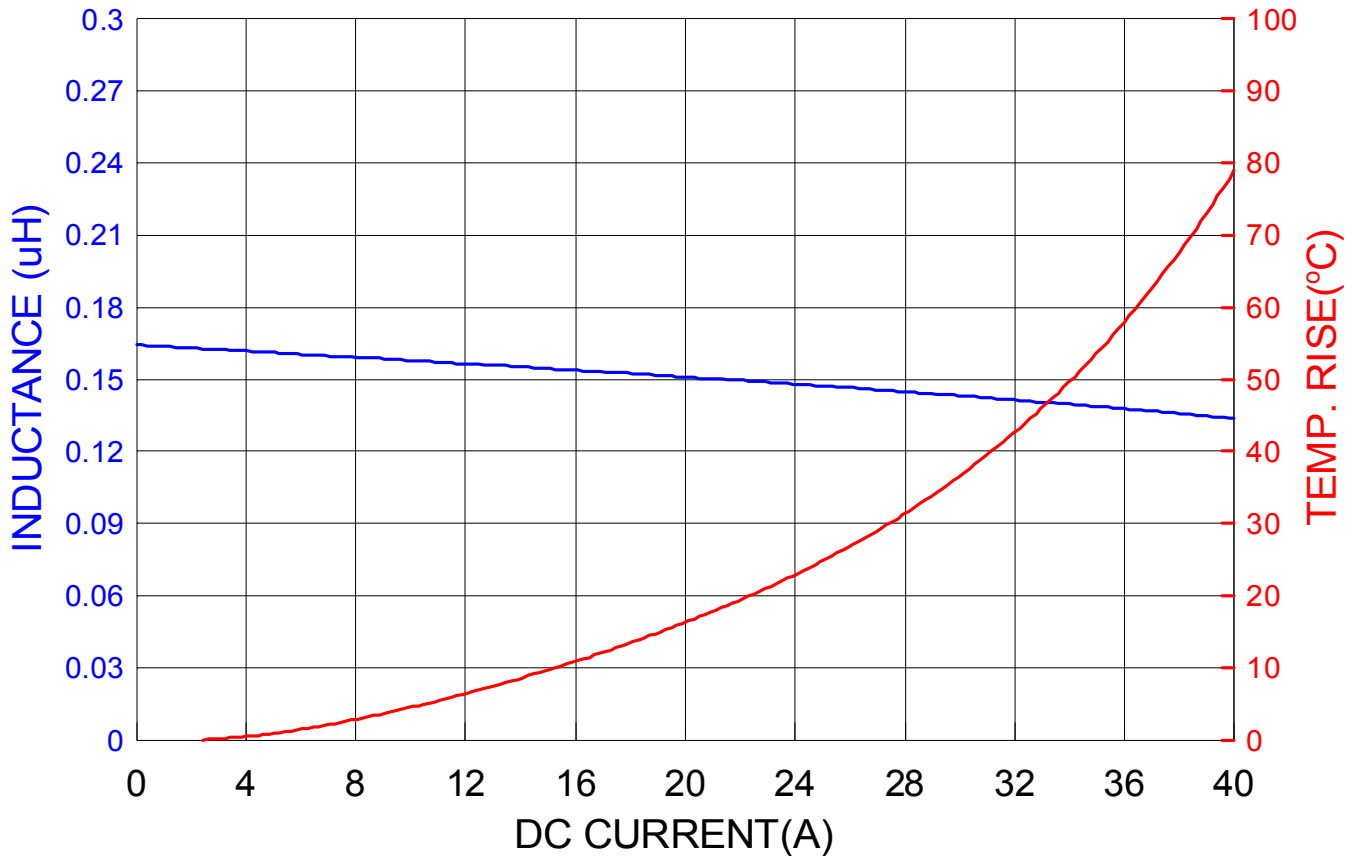
- Notes:
1. Based on  $\Delta T$  approximately 40°C
  2. L drops 20% typical

All test data based on 25°C ambient  
 Part temperature (ambient + temp rise) must not exceed 125°C under worst case operating conditions.  
 Circuit design, components, PCB trace size, airflow and other cooling provisions all effect the part temperature.

STS703-R10M



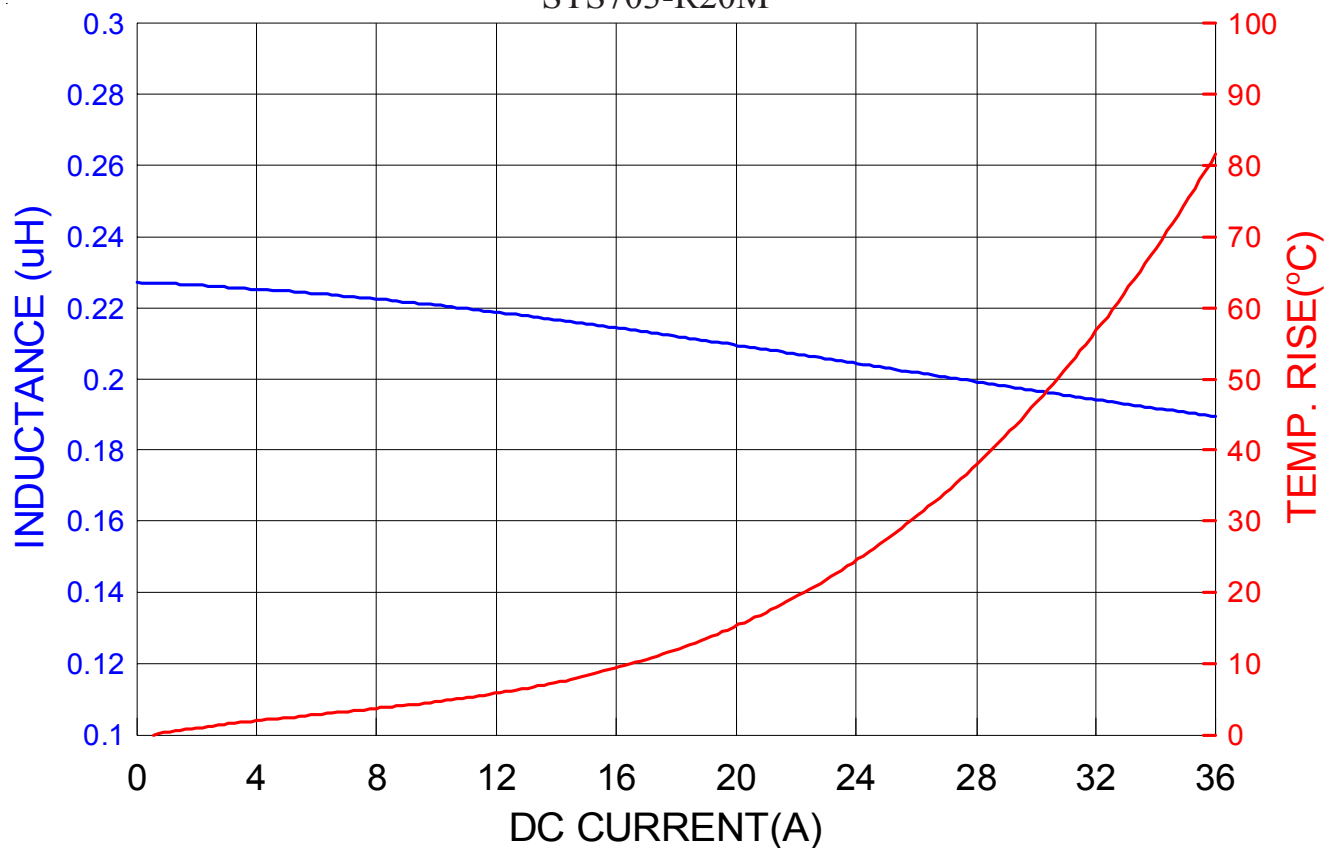
STS703-R15M



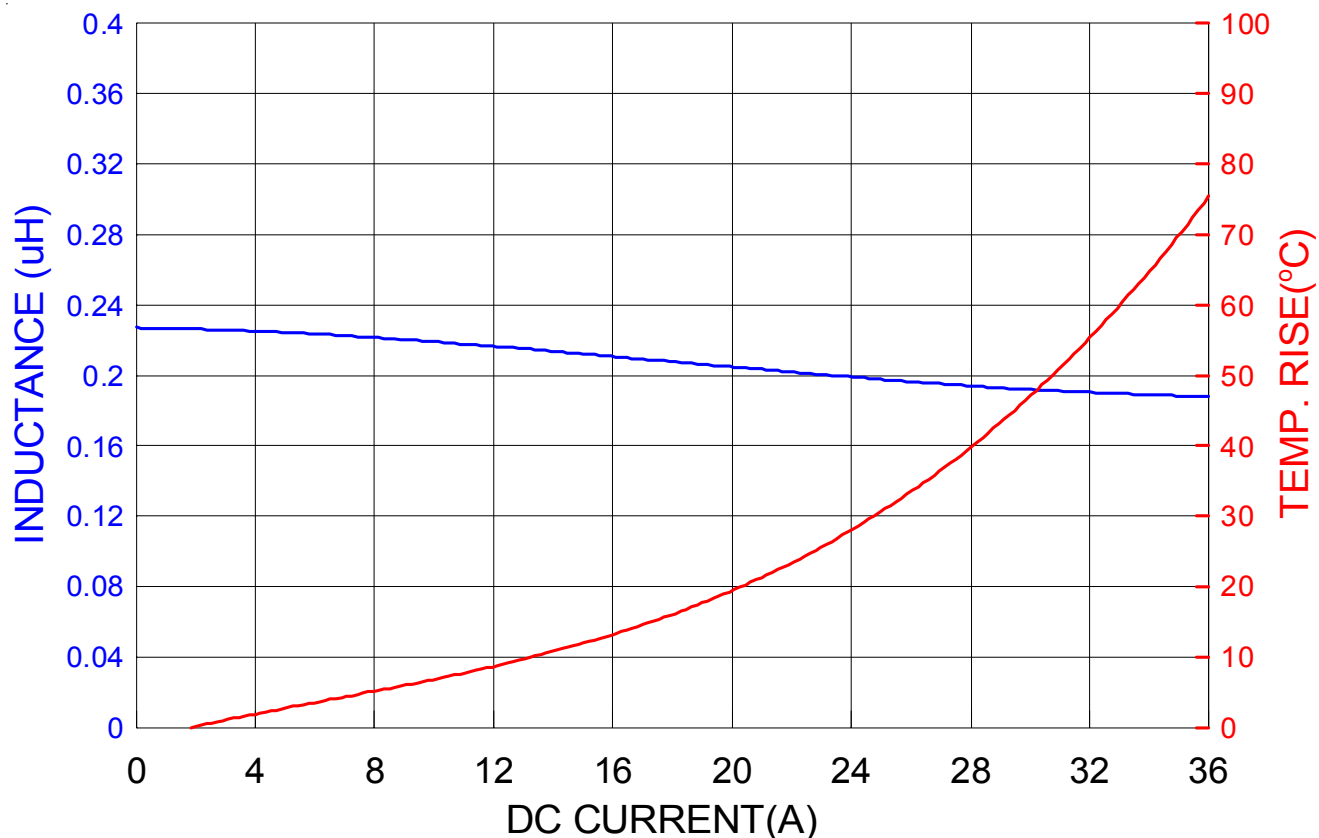
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STS703-R20M



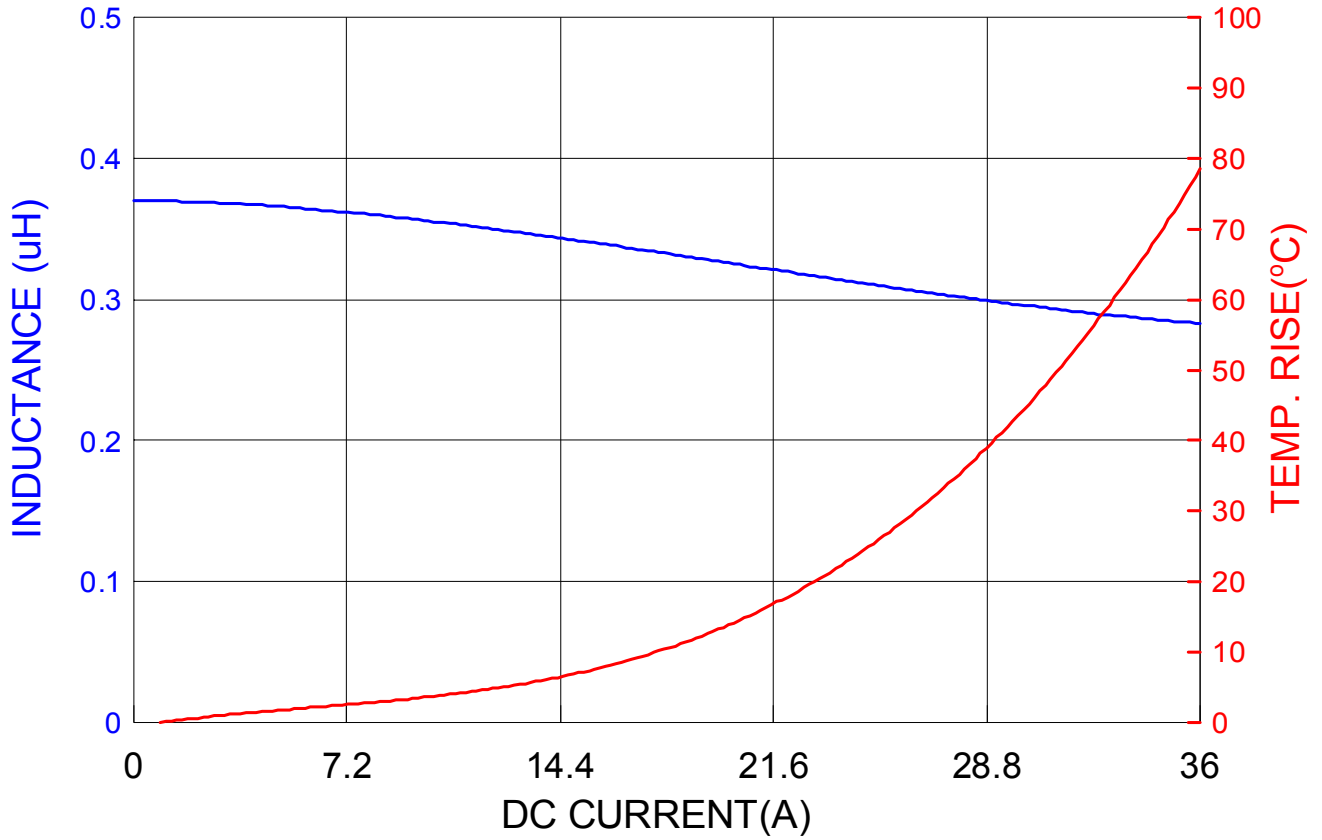
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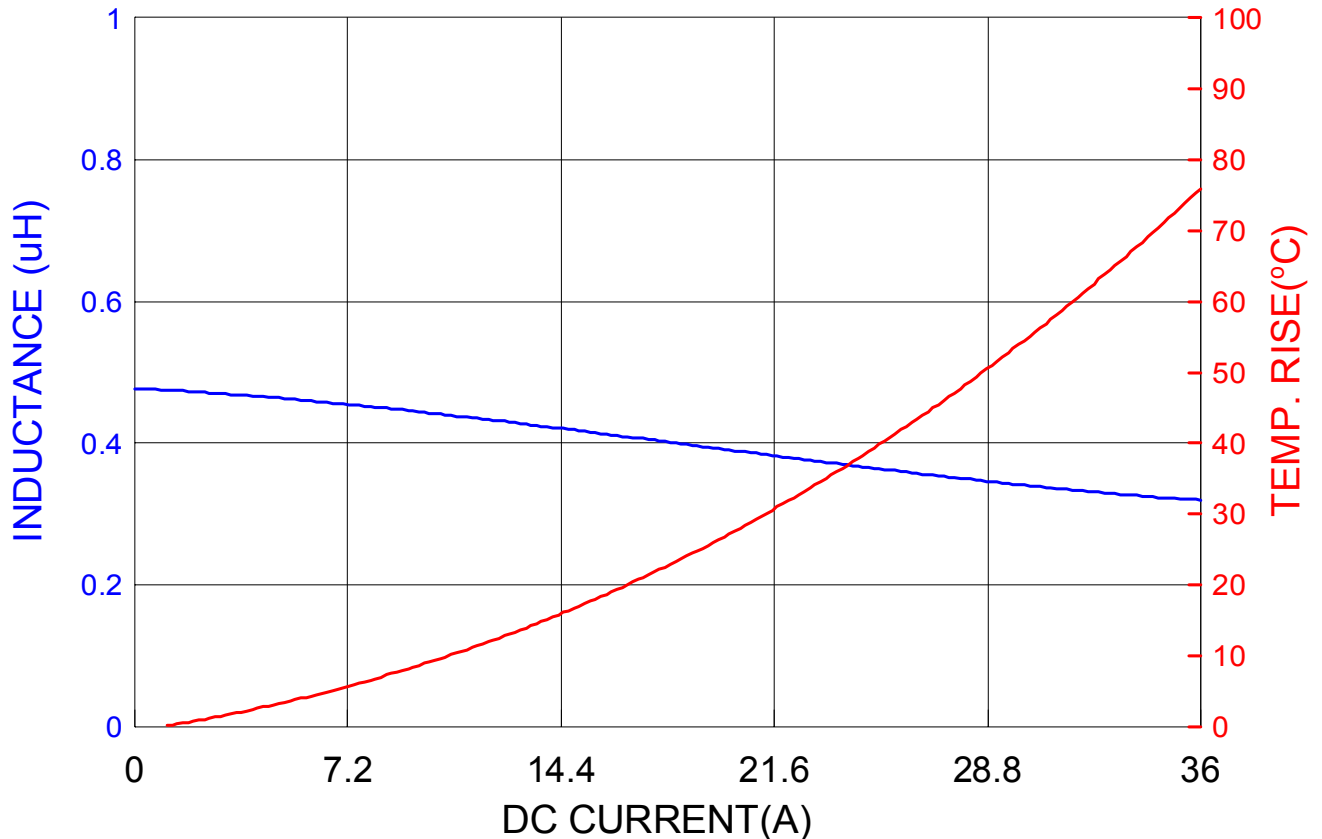
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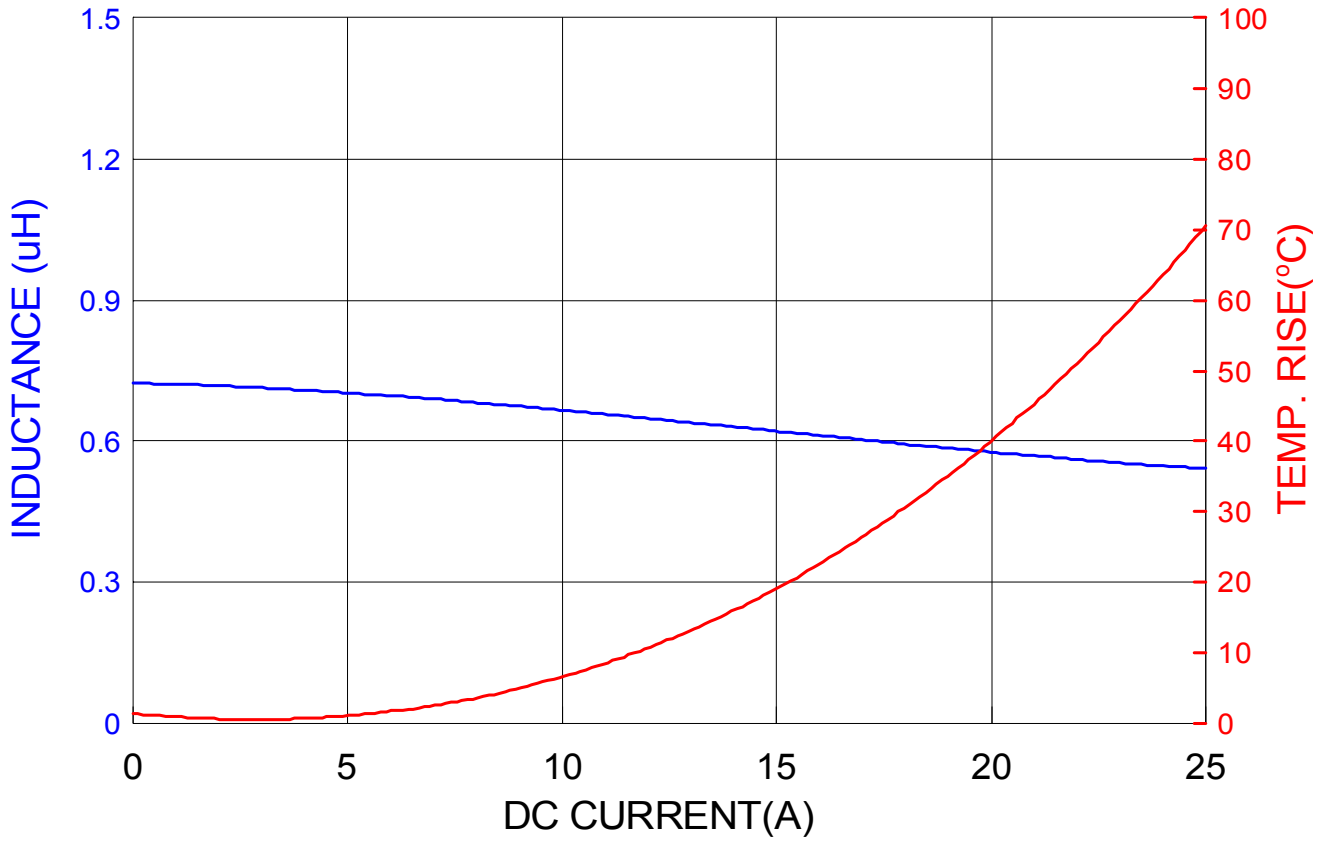
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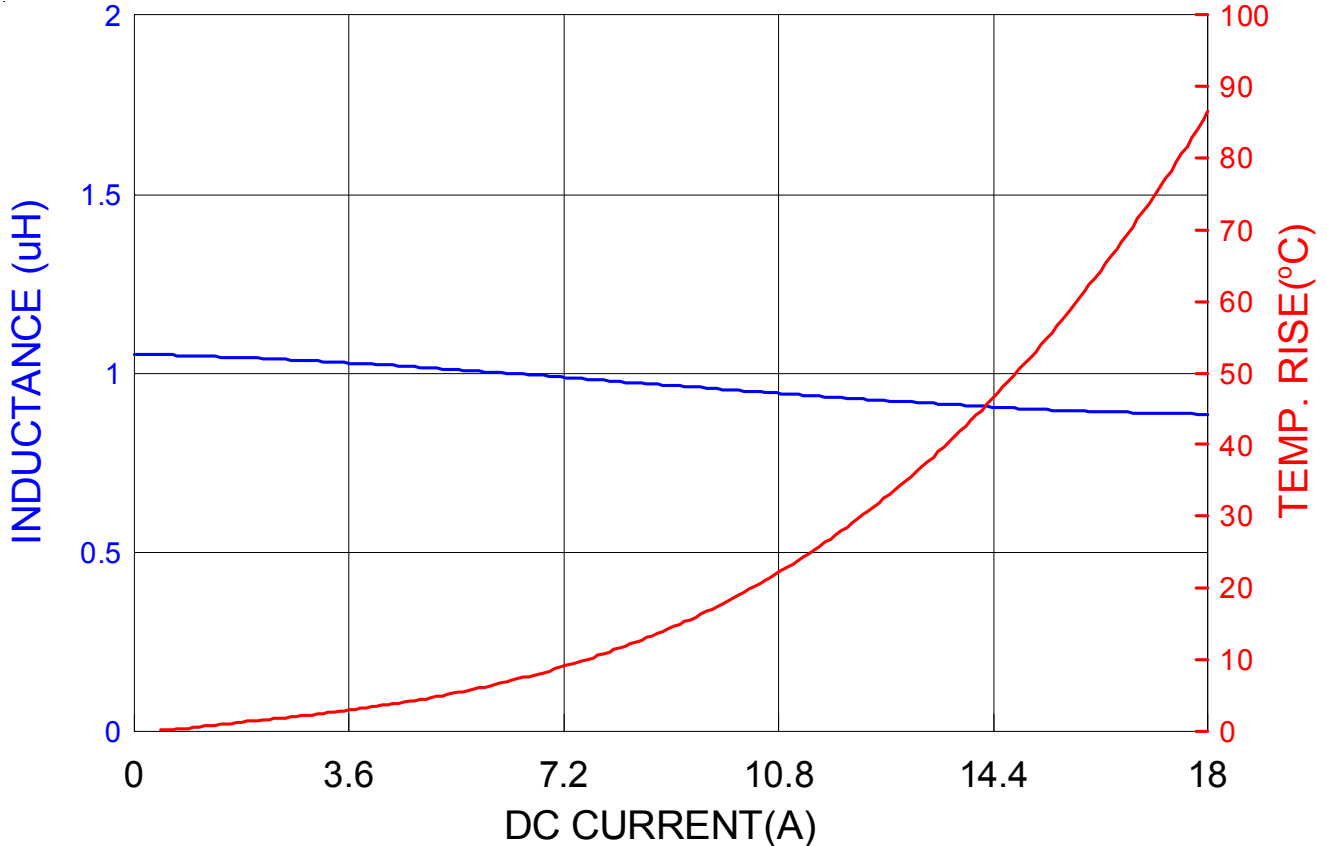
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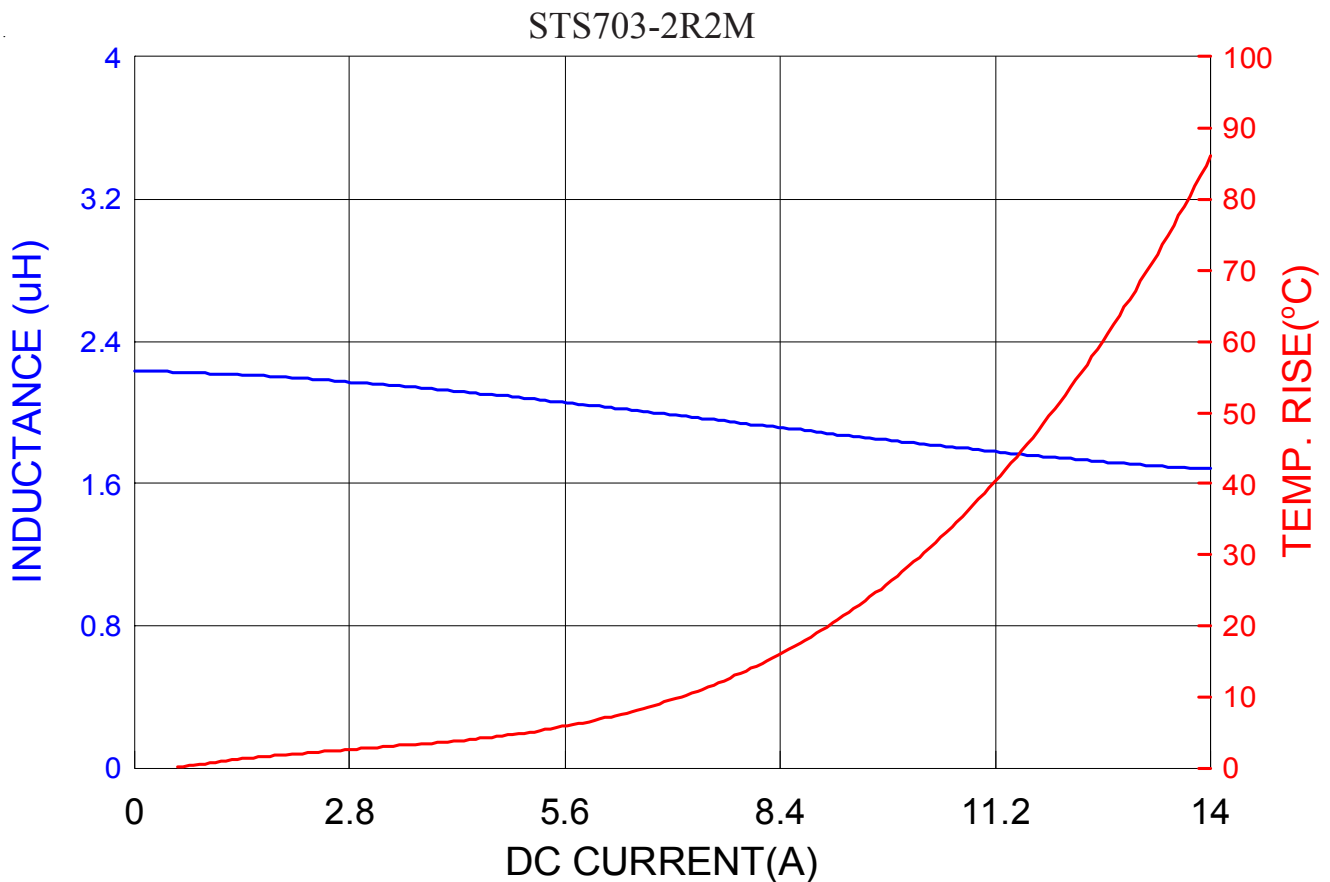
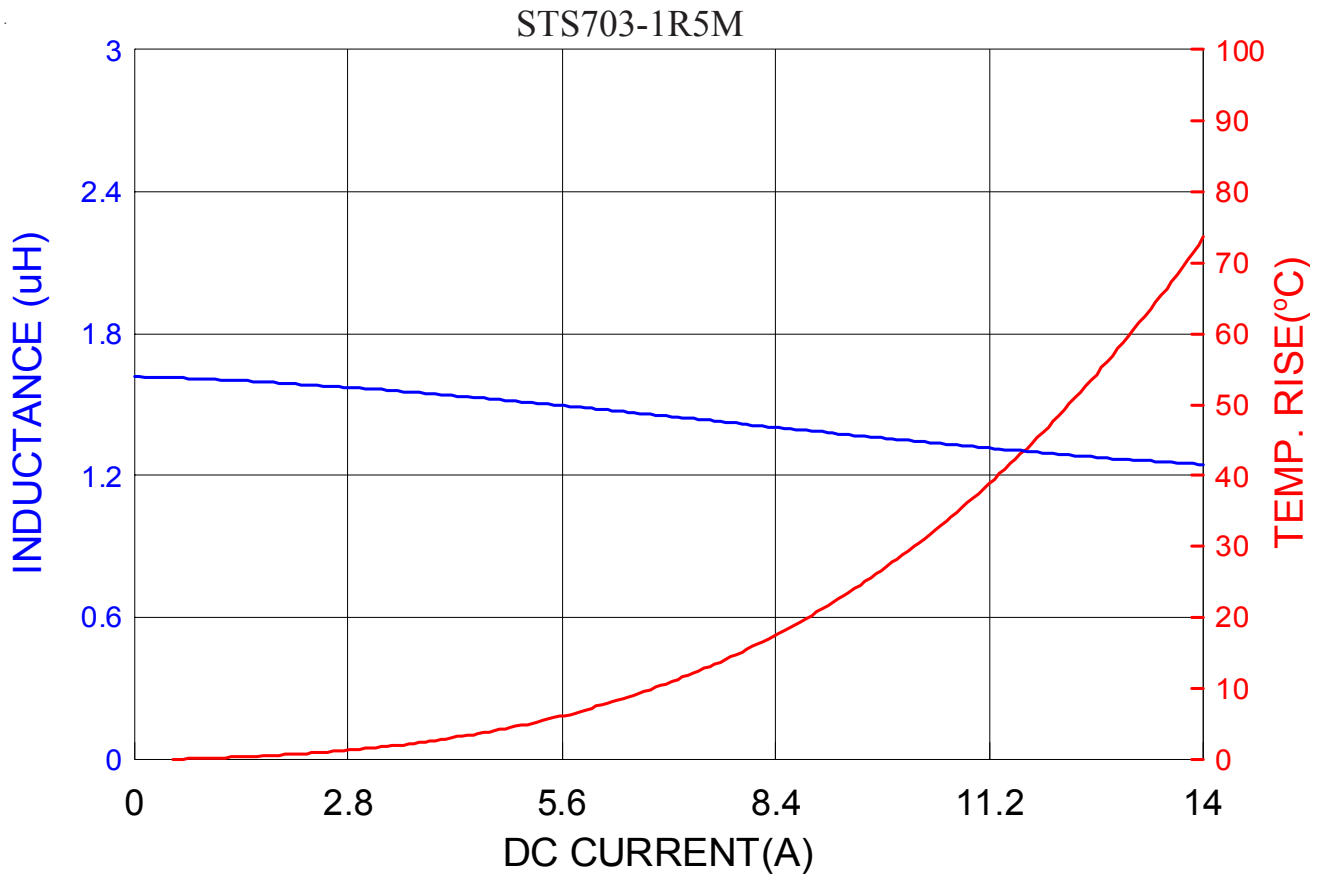


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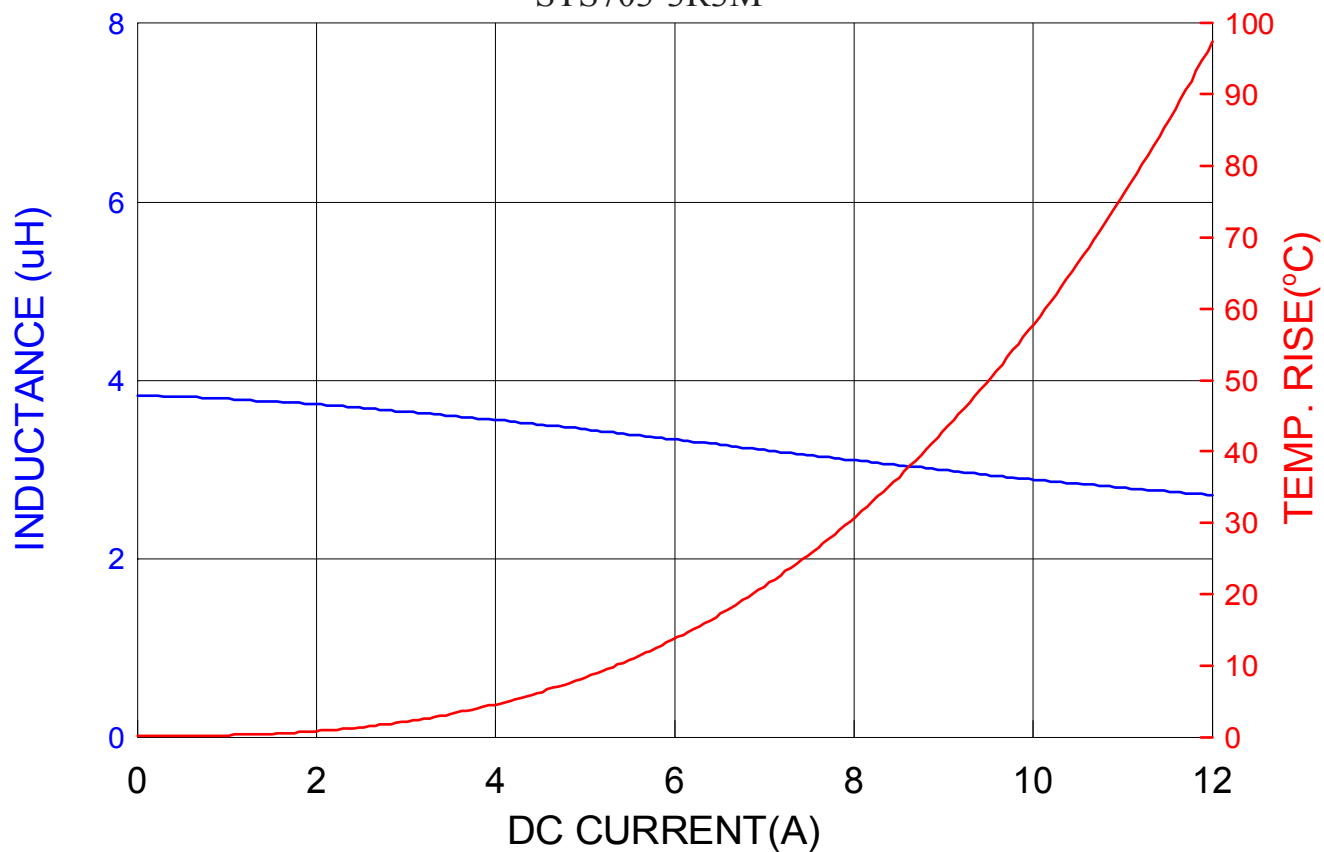
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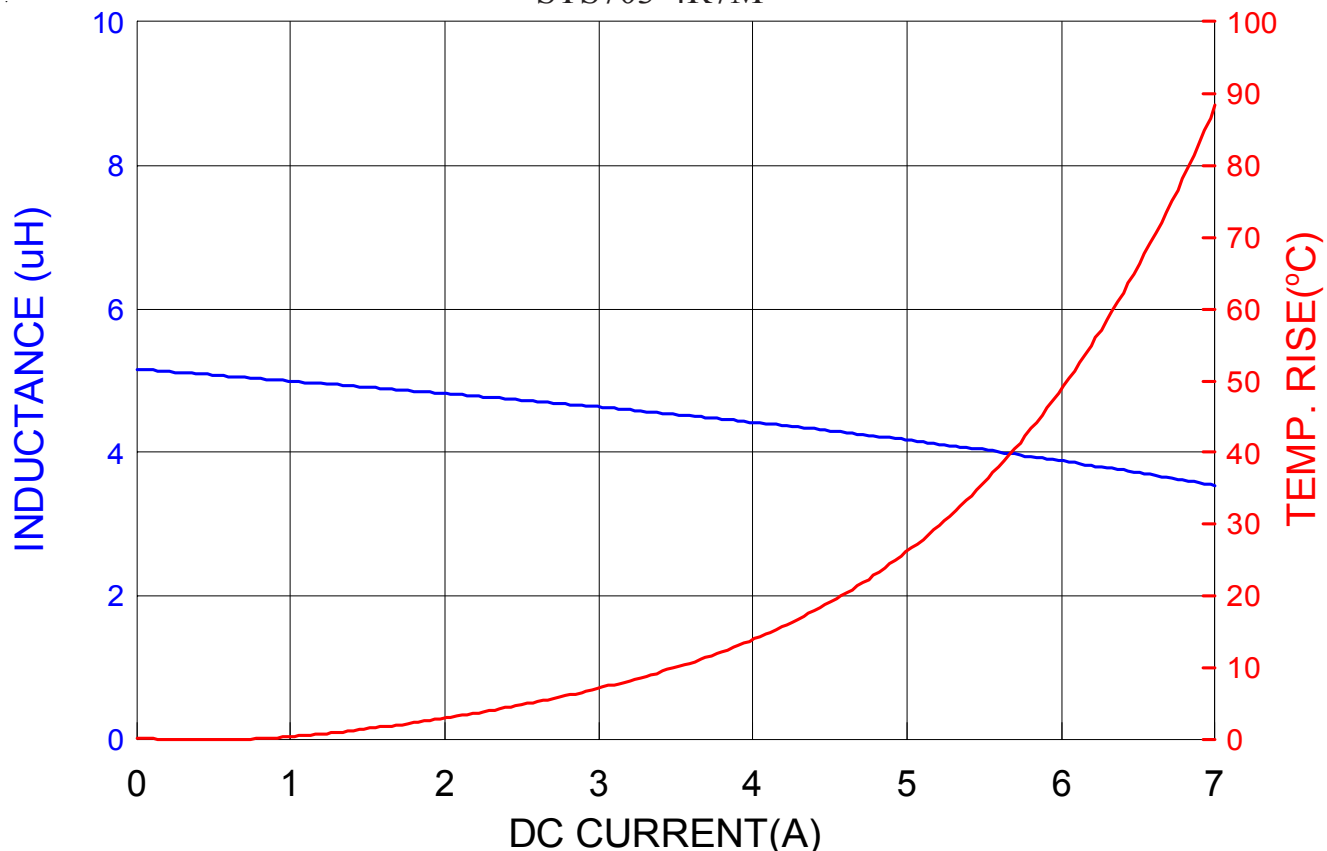
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STS703-3R3M



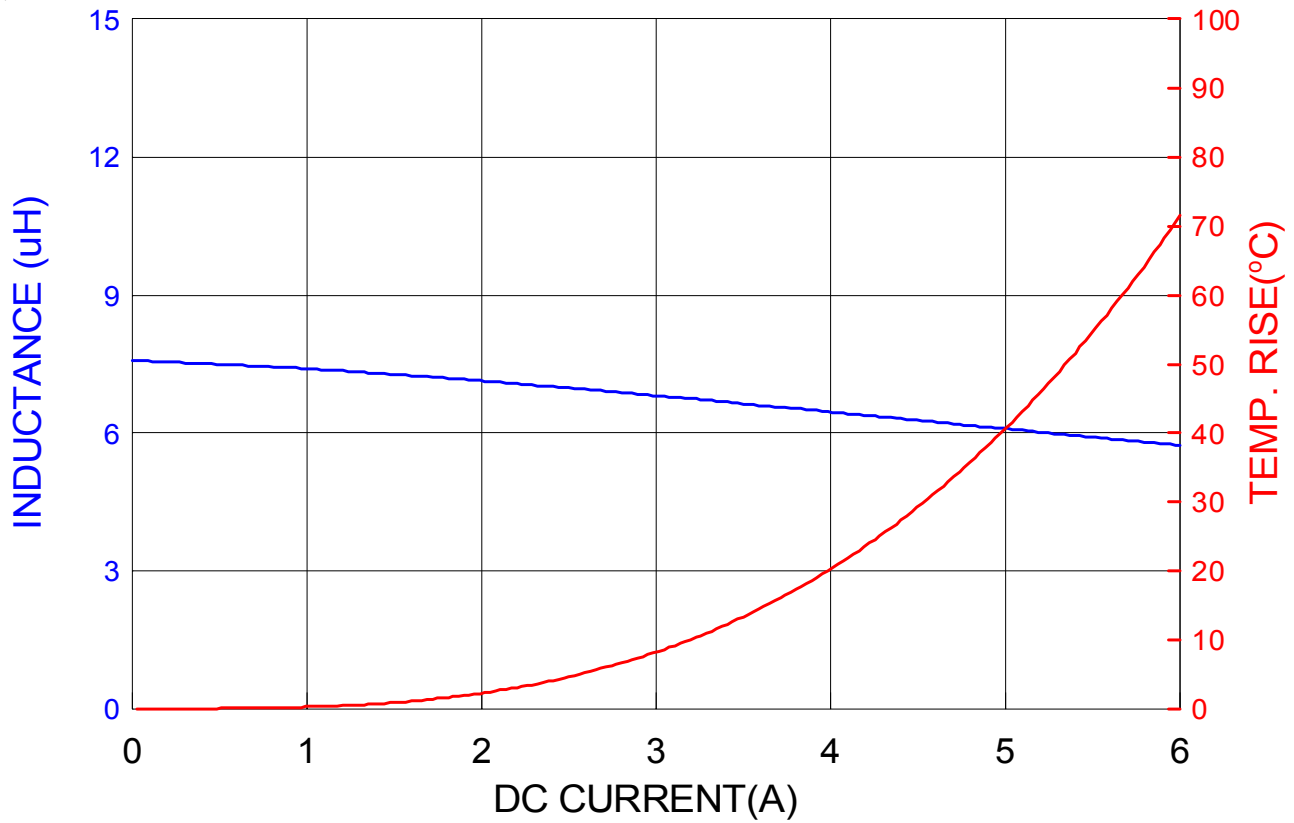
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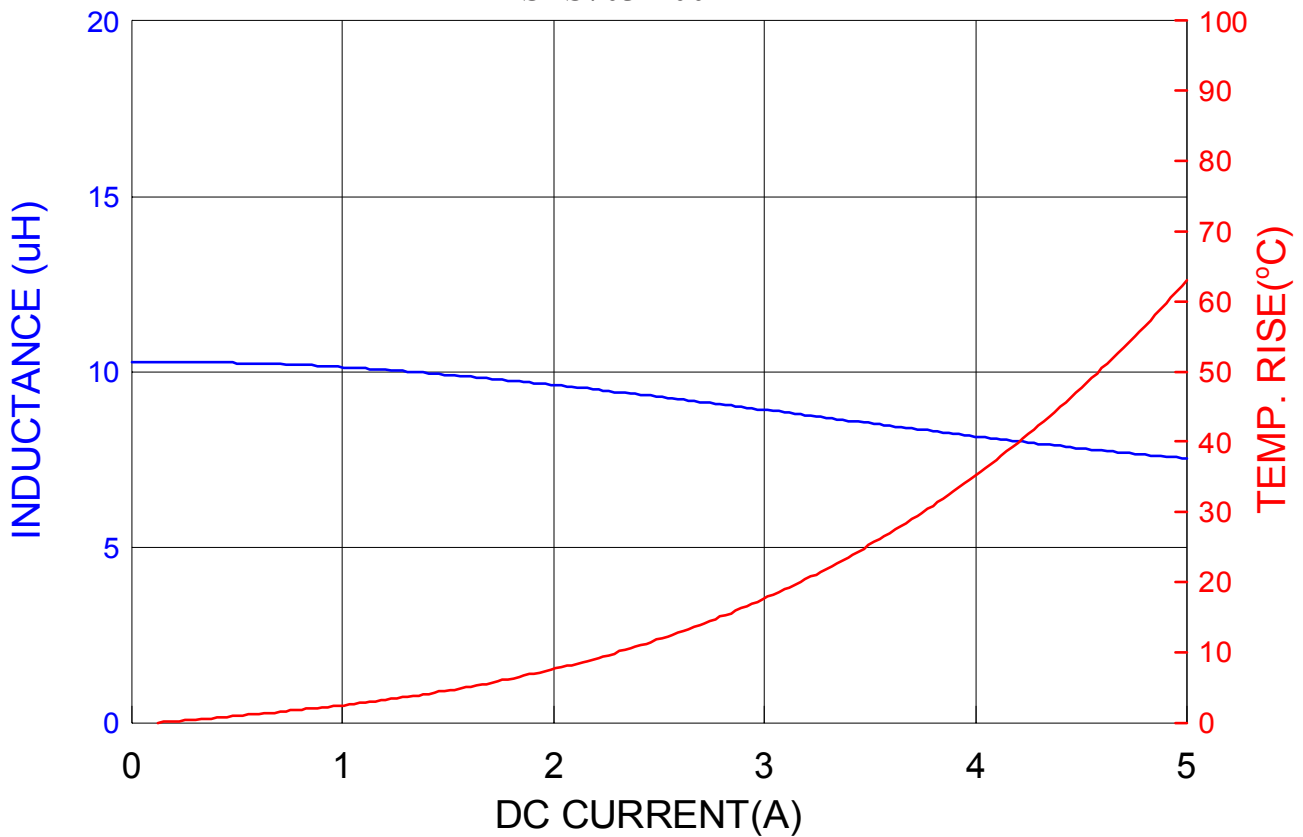
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### STS703-6R8M



### STS703-100M



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